0590 Page 1 of 6

OIPE

RAW SEQUENCE LISTING

1 <110> APPLICANT: Brieden, Walter

PATENT APPLICATION: US/10/086,082

DATE: 09/09/2002

TIME: 15:38:19

ENTERED

```
Naughton, Andrew
2
         Robins, Karen
3
         Shaw, Nicholas
4
 5
         Tinschert, Andreas
         Zimmermann, Thomas
  <120> TITLE OF INVENTION: METHOD OF PREPARING (S)-OR (R)
7
         -3,3,3-TRIFLUORO-2-HYDROXY-2-METHYLPROPIONIC ACID
8
  <130> FILE REFERENCE: 32213
9
10 <140> CURRENT APPLICATION NUMBER: 10/086,082
11 <141> CURRENT FILING DATE: 2002-02-28
13 <150> PRIOR APPLICATION NUMBER: US/09/214,679
14 <151> PRIOR FILING DATE: 1999-12-30
17 <160> NUMBER OF SEQ ID NOS: 14
18 <170> SOFTWARE: FastSEQ for Windows Version 3.0
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1442
22 <212> TYPE: DNA
23 <213> ORGANISM: Klebsiella oxytoca
24 <400> SEQUENCE: 1
          cccgggaact ccatgtggcc gtgatcctgg tcgagcagga tattgcgatg atccagcggg
                                                                                   60
25
          ccgcacagcg ctgtgcggta atggataaag gcctggttgt agaaacgctg acccaacaac
                                                                                  120
26
                                                                                  180
          agetetetga tgatetttta atgegtegte atetggetet gtaactaaac getataaatt
27
          acgtggagaa taacatatga aatggttgga agaatccatt atggccaaac gcggtgttgg
                                                                                  240
28
          tgccgggcgt aaaccggtaa cgcatcacct gacggaagaa atgcaaaaag agtttcatta
                                                                                  300
29
          caccattggc ccttattcca cacccgtcct gaccatcgaa cccggtgacc ggattattgt
                                                                                  360
30
          cgacactcga gatgcttttg aaggtgctat caattcggaa caggatattc cgagccagtt
                                                                                  420
31
          gctaaaaatg ccctttctca acccacaaaa cggaccgatc atggtcaatg gcgcggagaa
                                                                                  480
32
          aggtgatgtg ctcgctgtct atatcgaatc catgttgccc cgcggcgttg atccctacgg
                                                                                  540
33
          catctgcgcc atgattccgc attttggcgg actgaccggg accgacctga cggccatgct
                                                                                  600
34
                                                                                  660
          caatgatccg ctgccagaaa aggtgcgcat gattaaactc gacagtgaaa aggtctactg
35
                                                                                  720
          gagcaaacgc catacgcttc cctataaacc ccatattggc accttgagcg tatcgccaga
36
          aattgactca atcaattcac tgacgccaga caatcacggc gggaatatgg atgtgccgga
                                                                                  780
37
                                                                                  840
          tataggacca gggagtatta cctatctgcc ggtacgtgcg cctggaggcc gcctgtttat
38
                                                                                  900
          tggtgatgcc catgcttgtc agggtgatgg tgagatttgc gggaccgcag tagagtttgc
39
                                                                                  960
          ctcaatcacc accatcaaag tcgatttgat caagaactgg cagctttcct ggccacgaat
40
          ggagaatgcc gaaaatatta tgagtattgg cagtgcacgt ccgctggagg atgcgacgcg
                                                                                 1020
41
                                                                                 1080
          aattgcatat cgcgacttaa tttactggct ggtagaagac tttggcttcg aacaatggga
42
                                                                                 1140
          tgcctacatg cttctgagtc aatgcggcaa agtgcggctg ggcaacatgg tcgaccccaa
43
          atacaccgtt ggcgcgatgc tgaacaaaaa cctgttagtt tagtaggaat aactaaccgg
                                                                                 1200
44
          tgaacattac ccggatgtag atcggggtaa tgtgtaagtt caaacaatcg ctattttaa
                                                                                 1260
45
                                                                                 1320
          cagctaaagc aggtgcatat ggggccagat acacccatca atattggttt actttactcc
46
                                                                                 1380
          ttcagcggag tgacggcggc acaagagttg tcacaatggc gcggagcaac ccaggctatt
47
```

1440

RAW SEQUENCE LISTING DATE: 09/09/2002 PATENT APPLICATION: US/10/086,082 TIME: 15:38:19

gccgaaatta atcaaaatgg cggcatcaac ggcagaccac tcaatgcaat tcatttggat

Input Set : N:\Crf3\RULE60\10086082.raw
Output Set: N:\CRF3\09092002\J086082.raw

40			yaaa	LLa	atta	aaat	gg C	gyca	LCaa	c yy	caya	CCaC	LCa	atyc	aac	LCaL	ccyyac	1440
49		cc																1442
51	<210>	SEQ	ID N	0: 2														
52	<211>	LENGTH: 328																
53	<212>	TYPE: PRT																
54	<213>	ORGA	NISM	: K1	ebsi	ella	OXV	toca										
	<400>						1											
56	11007				T.A.II	Glu	Glu	Sar	Tlo	Mot	λla	Laze	λνα	C117	Val	Gly	λla	
57		1	цуз	115	БСи	5	OIU	JCI	110	rice	10	цуз	AIG	GIY	VUI	15	AIU	
		_	3	T	Dmo	-	шь	TT	TT = ~	T		G3	61	1/ - L	01		a 1	
58		GIY	Arg	гЛS		val	THE	HIS	HIS		Thr	Giu	GIU	мес		Lys	GIU	
59					20					25			_		30	_	_	
60		Phe	His	_	Thr	Ile	GTA	Pro	_	Ser	Thr	Pro	Val	Leu	Thr	Ile	Glu	
61				35					40					45				
62		Pro	Gly	Asp	Arg	Ile	Ile	Val	Asp	Thr	Arg	Asp	Ala	Phe	Glu	Gly	Ala	
63			50					55					60					
64		Ile	Asn	Ser	Glu	Gln	Asp	Ile	Pro	Ser	Gln	Leu	Leu	Lys	Met	Pro	Phe	
65		65					70					75					80	
66		Leu	Asn	Pro	Gln	Asn	Gly	Pro	Ile	Met	Val	Asn	Glv	Ala	Glu	Lys	Glv	
67						85	•				90		1			95	1	
68		Asn	Val	Len	Δla		Tyr	Tle	Glu	Ser		T.011	Pro	Δνα	Glv	Val	Δen	
69		เเษต	, aı	шси	100	, aı	- <i>y</i> -	110	Olu	105	rice	пси	110	nry	110	VUI	изь	
70		Dro	Птт	C1**		Cvc	715	Mot	т10		ui a	Dho	C1	C1		mbs	C1	
		PIO	тут			Cys	нта	Mec		PIO	піѕ	Pile	GIY	_	Leu	Thr	СТУ	
71		m 1		115			30-4	.	120				_	125	-	1	_	
72		Thr	_	Leu	Thr	АТа	Met		Asn	Asp	Pro	Leu		GIu	Lys	Val	Arg	
73			130					135					140					
74			Ile	Lys	Leu	Asp	Ser	Glu	Lys	Val	${ t Tyr}$	\mathtt{Trp}	Ser	Lys	Arg	His	\mathtt{Thr}	
75		145					150					155					160	
76		Leu	Pro	Tyr	Lys	Pro	His	Ile	Gly	Thr	Leu	Ser	Val	Ser	Pro	Glu	Ile	
77						165					170					175		
78		Asp	Ser	Ile	Asn	Ser	Leu	Thr	Pro	Asp	Asn	His	Gly	Gly	Asn	Met	Asp	
79					180					185					190			
80		Val	Pro	Asp	Ile	Gly	Pro	Gly	Ser	Ile	Thr	Tyr	Pro	Leu	Val	Arg	Ala	
81				195		-		-	200			_		205		_		
82		Pro	Glv		Ara	Len	Phe	Tle		Asp	Ala	His	Δla		Gln	Gly	Asp	
83			210	1	5			215					220	0,5	0111	011	p	
84		Glv		Tlo	Cve	Cl v	Thr		Va l	Clu	Dho	712		т10	mhr.	Thr	Tlo	
85		225	GIU	110	Cys	GLY	230	ALU	Val	GIU	rne	235	Ser	116	1111	1111		
86			17n]	3	T	T1.		3	TI	01 -	T		m	B	3	36-4	240	
		ьуѕ	vai	ASP	Leu		ьуѕ	ASII	тгр	GIN		ser	тгр	Pro	Arg	Met	GIU	
87		_		~ 1	_	245					250		_	_	_	255	_	
88		Asn	Ala	Glu												Glu	Asp	
89																		
90		Ala	Thr	Arg	Ile	Ala	Tyr	Arg	Asp	Leu	Ile	Tyr	Trp	Leu	Val	Glu	Asp	
91				275					280					285				
92		Phe	Gly	Phe	Glu	Gln	Trp	Asp	Ala	Tyr	Met	Leu	Leu	Ser	Gln	Cys	Gly	
93			290				-	295					300			_	_	
94		Lys	Val	Arq	Leu	Gly	Asn	Met	Val	Asp	Pro	Lys	Tyr	Thr	Val	Gly	Ala	
95		305				- 4	310					315				1	320	
96			Leu	Asn	Lvs	Asn		Len	Va 1									
97					-10	325		~~~	,									
,						223												

48

RAW SEQUENCE LISTING DATE: 09/09/2002 PATENT APPLICATION: US/10/086,082 TIME: 15:38:19

```
99 <210> SEQ ID NO: 3
100 <211> LENGTH: 20
101 <212> TYPE: PRT
102 <213> ORGANISM: Klebsiella oxytoca
103 <400> SEQUENCE: 3
           Met Lys Trp Leu Glu Glu Ser Ile Met Ala Lys Arg Gly Val Gly Ala
104
                                                10
105
           1
                            5
106
           Ser Arg Lys Pro
107
                       20
109 <210> SEQ ID NO: 4
110 <211> LENGTH: 5
111 <212> TYPE: PRT
112 <213> ORGANISM: Klebsiella oxytoca
113 <400> SEQUENCE: 4
           Val Tyr Trp Ser Lys
114
115
117 <210> SEQ ID NO: 5
118 <211> LENGTH: 13
119 <212> TYPE: PRT
120 <213> ORGANISM: Klebsiella oxytoca
121 <400> SEQUENCE: 5
           Lys Pro Val Thr His His Leu Thr Glu Glu Met Gln Lys
122
123
                            5
           1
125 <210> SEQ ID NO: 6
126 <211> LENGTH: 9
127 <212> TYPE: PRT
128 <213> ORGANISM: Klebsiella oxytoca
129 <400> SEQUENCE: 6
130
           Tyr Thr Val Gly Ala Met Leu Asn Lys
131
           1
133 <210> SEQ ID NO: 7
134 <211> LENGTH: 14
135 <212> TYPE: PRT
136 <213> ORGANISM: Klebsiella oxytoca
137 <400> SEQUENCE: 7
           Met Glu Asn Ala Glu Asn Ile Met Ser Ile Gly Ser Ala Arg
138
139
            1
141 <210> SEQ ID NO: 8
142 <211> LENGTH: 9
143 <212> TYPE: PRT
144 <213> ORGANISM: Klebsiella oxytoca
145 <400> SEQUENCE: 8
           Trp Leu Glu Glu Ser Ile Met Ala Lys
146
147
149 <210> SEQ ID NO: 9
150 <211> LENGTH: 18
151 <212> TYPE: PRT
152 <213> ORGANISM: Klebsiella oxytoca
153 <400> SEQUENCE: 9
```

RAW SEQUENCE LISTING DATE: 09/09/2002 PATENT APPLICATION: US/10/086,082 TIME: 15:38:19

```
Met Pro Phe Leu Asn Pro Gln Asn Gly Pro Ile Met Val Asn Gly Ala
154
                            5
                                                10
155
            1
156
           Glu Lys
158 <210> SEQ ID NO: 10
159 <211> LENGTH: 19
160 <212> TYPE: PRT
161 <213> ORGANISM: Klebsiella oxytoca
162 <400> SEQUENCE: 10
           Asp Ala Phe Glu Gly Ala Ile Asn Ser Glu Gln Asp Ile Pro Ser Gln
163
                            5
                                                10
           1
164
165
          Leu Leu Lys
167 <210> SEQ ID NO: 11
168 <211> LENGTH: 21
169 <212> TYPE: PRT
170 <213> ORGANISM: Klebsiella oxytoca
171 <400> SEQUENCE: 11
           Glu Phe His Tyr Thr Ile Gly Pro Tyr Ser Thr Pro Val Leu Thr Ile
172
                                                10
173
           1
                            5
174
           Glu Pro Gly Asp Arg
                       20
177 <210> SEQ ID NO: 12
178 <211> LENGTH: 23
179 <212> TYPE: PRT
180 <213> ORGANISM: Klebsiella oxytoca
181 <400> SEQUENCE: 12
           Leu Phe Ile Gly Asp Ala His Ala Glu Gln Gly Asp Gly Glu Ile Glu
182
                                                10
183
                            5
           Gly Thr Ala Val Glu Phe Ala
184
                       20
185
187 <210> SEQ ID NO: 13
188 <211> LENGTH: 14
189 <212> TYPE: PRT
190 <213> ORGANISM: Klebsiella oxytoca
191 <400> SEQUENCE: 13
           Gly Asp Val Leu Ala Val Tyr Ile Glu Ser Met Leu Pro Arg
                            5
195 <210> SEQ ID NO: 14
196 <211> LENGTH: 33
197 <212> TYPE: PRT
198 <213> ORGANISM: Klebsiella oxytoca
199 <400> SEQUENCE: 14
           Gly Val Asp Pro Tyr Gly Ile Glu Ala Met Ile Pro His Phe Gly Gly
200
                                                10
201
           Leu Thr Gly Thr Asp Leu Thr Ala Met Leu Asn Asp Gln Leu Gln Pro
202
                                            25
203
204
           Lys
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/086,082

DATE: 09/09/2002

TIME: 15:38:20